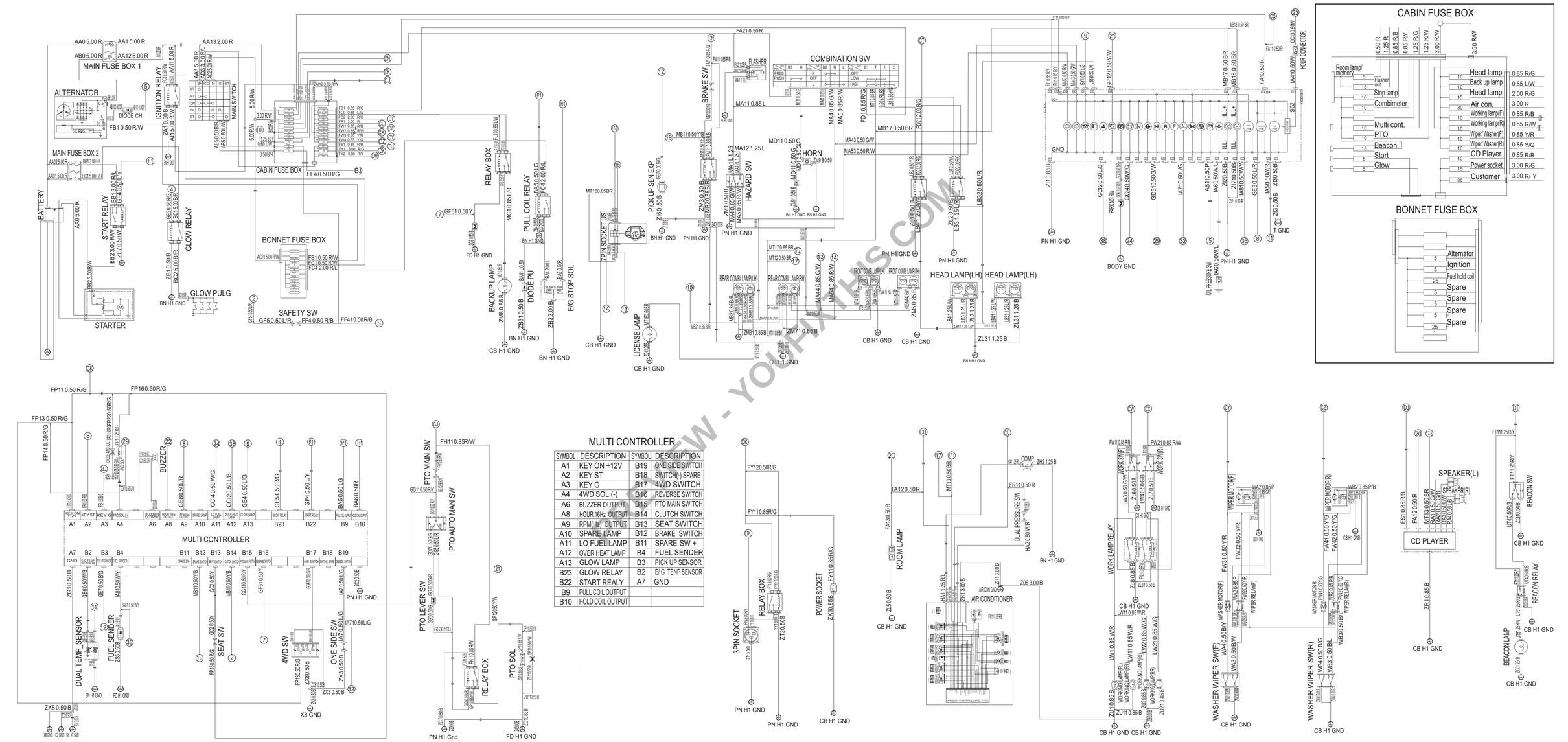
RX6010C/AU,EU:MECHANICAL SHUTTLE



MULTI CONTROLLER

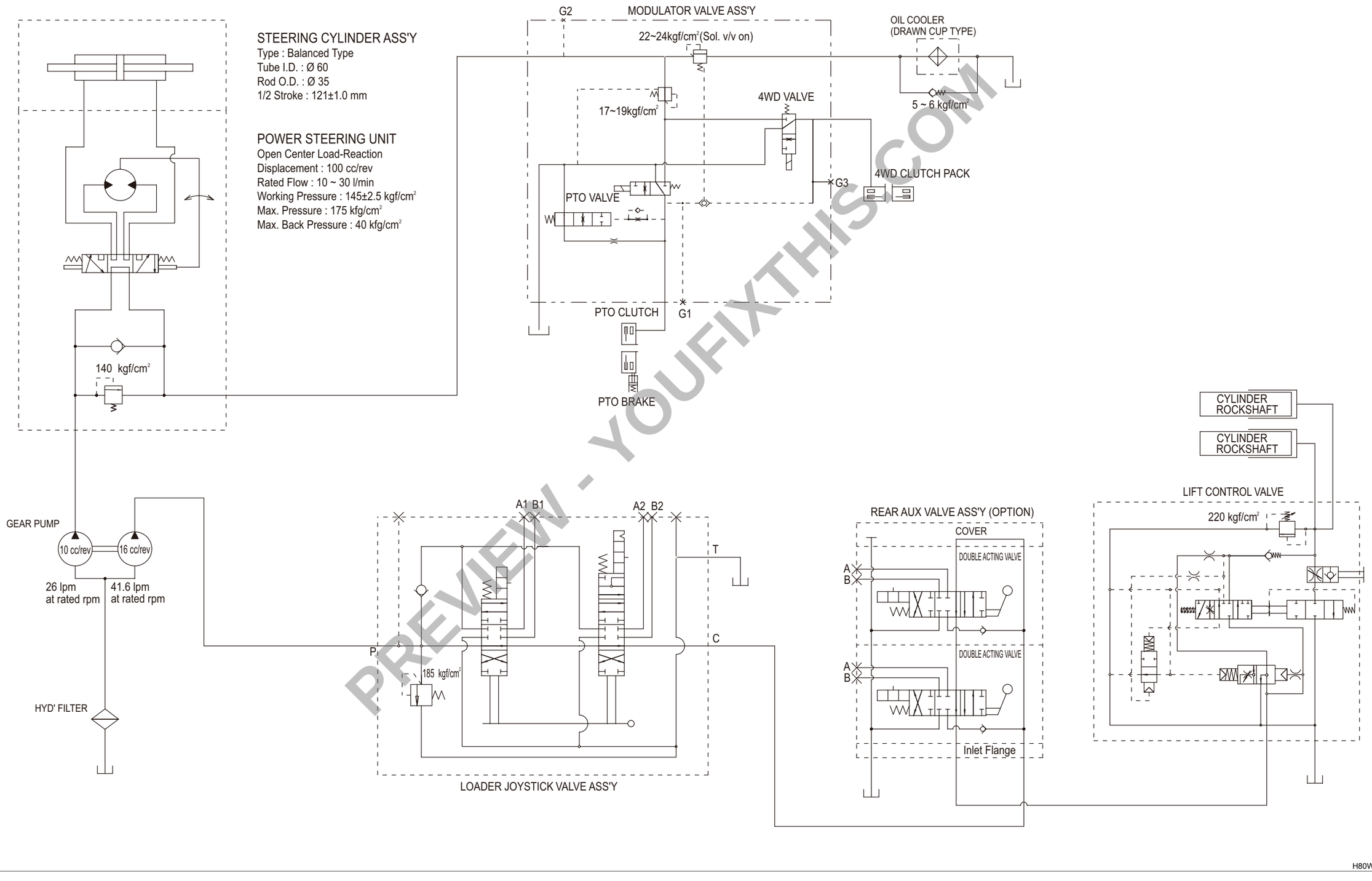
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
A1	KEY ON +12V	B19	ONE SIDE SWITCH
A2	KEY ST	B18	SWITCH(-) SPARE
A3	KEY G	B17	4WD SWITCH
A4	4WD SOL.(-)	B16	REVERSE SWITCH
A6	BUZZER OUTPUT	B15	PTO MAIN SWITCH
A8	HOUR 18Hz OUTPUT	B14	CLUTCH SWITCH
A9	RPM(Hz) OUTPUT	B13	SEAT SWITCH
A10	SPARE LAMP	B12	BRAKE SWITCH
A11	LO FUEL LAMP	B11	SPARE SW +
A12	OVER HEAT LAMP	B4	FUEL SENDER
A13	GLOW LAMP	B3	PICK UP SENSOR
B23	GLOW RELAY	B2	E/ G TENP SENSOR
B22	START REALY	A7	GND
B9	PULL COIL OUTPUT		
B10	HOLD COIL OUTPUT		

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2.3 HYDRAULIC CIRCUIT

RX6010C



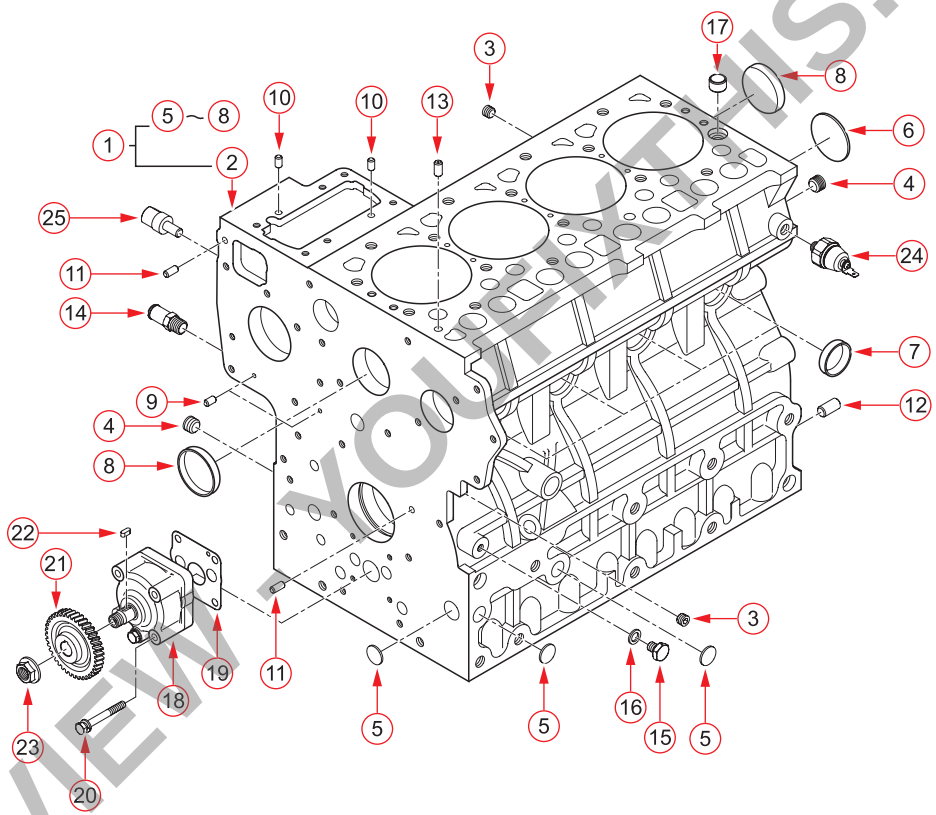
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6. EXPLODED VIEW

NOTES

- **The manufacturing parts are subject to change without notice. Therefore, check the parts catalog or electronic manual for latest information.**

6.1 E010 CYLINDER BLOCK



T46W2F9C

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COMPONENTS

(1) Cylinder block assembly
(2) Cylinder block
(3) Plug
(4) Plug
(5) Plug
(6) Plug
(7) Plug
(8) Plug
(9) Straight pin
(10) Straight pin
(11) Straight pin
(12) Straight pin
(13) Pipe pin
(14) Coolant return pipe
(15) Plug
(16) Gasket
(17) Pipe pin
(18) Oil pump assembly
(19) Oil pump gasket
(20) Bolt with captive washer
(21) Oil pump drive gear
(22) Key
(23) Flange nut
(24) Oil switch
(25) Oil gauge guide

10. TIGHTENING TORQUE

10.1 GENERAL USE SCREWS, BOLTS AND NUTS

Screws, bolts and nuts whose tightening torques are not specified in this workshop manual should be tightened according to the table below.

Mark on bolt head	4 No-grade or 4T						7 7T						9 9T		
Bolt material	SS400, S20C						S43C, S48C						SCr435, SCM435		
Material of component part	Steel or cast iron			Aluminum			Steel or cast iron			Aluminum			Steel or cast iron		
Unit / Type	Nm	kgf-m	lbf-ft	Nm	kgf-m	lbf-ft	Nm	kgf-m	lbf-ft	Nm	kgf-m	lbf-ft	Nm	kgf-m	lbf-ft
M6 (6 mm, 0.24 in.)	7.85 ~ 9.31	0.80 ~ 0.95	5.79 ~ 6.87	7.85 ~ 8.82	0.80 ~ 0.90	5.79 ~ 6.50	9.81 ~ 11.2	1.00 ~ 1.15	7.24 ~ 8.31	7.85 ~ 8.82	0.80 ~ 0.90	5.79 ~ 6.50	12.3 ~ 14.2	1.25 ~ 1.45	9.05 ~ 10.4
M8 (8 mm, 0.31 in.)	17.7 ~ 20.5	1.8 ~ 2.1	13.1 ~ 15.1	16.7 ~ 19.6	1.7 ~ 2.0	12.3 ~ 14.4	23.6 ~ 27.4	2.4 ~ 2.8	17.4 ~ 20.2	17.7 ~ 20.5	1.8 ~ 2.1	13.1 ~ 15.1	29.5 ~ 34.3	3.0 ~ 3.5	21.7 ~ 25.3
M10 (10 mm, 0.39 in.)	39.3 ~ 45.1	4.0 ~ 4.6	29.0 ~ 33.2	31.4 ~ 34.3	3.2 ~ 3.5	23.2 ~ 25.3	48.1 ~ 55.8	4.9 ~ 5.7	35.5 ~ 41.2	39.3 ~ 44.1	4.0 ~ 4.5	29.0 ~ 32.5	60.9 ~ 70.6	6.2 ~ 7.2	44.9 ~ 52.0
M12 (12 mm, 0.47 in.)	62.8 ~ 72.5	6.4 ~ 7.4	46.3 ~ 53.5				77.5 ~ 90.2	7.9 ~ 9.2	57.2 ~ 66.5	62.8 ~ 72.5	6.4 ~ 7.4	46.3 ~ 53.5	103 ~ 117	10.5 ~ 12.0	76.0 ~ 86.7
M14 (14 mm, 0.55 in.)	108 ~ 125	11.0 ~ 12.8	79.6 ~ 92.5				124 ~ 147	12.6 ~ 15.0	91.2 ~ 108				167 ~ 704	17.0 ~ 20.0	123 ~ 144
M16 (16 mm, 0.63 in.)	167 ~ 191	17.0 ~ 19.5	123 ~ 141				197 ~ 225	20.0 ~ 23.0	145 ~ 166				260 ~ 304	26.5 ~ 31.0	192 ~ 224
M18 (18 mm, 0.71 in.)	246 ~ 284	25.0 ~ 29.0	181 ~ 209				275 ~ 318	28.0 ~ 32.5	203 ~ 235				344 ~ 402	35.0 ~ 41.0	254 ~ 296
M20 (20 mm, 0.79 in.)	334 ~ 392	34.0 ~ 40.0	246 ~ 289				368 ~ 431	37.5 ~ 44.0	272 ~ 318				491 ~ 568	50.0 ~ 58.0	362 ~ 419

10.2 STUD BOLTS

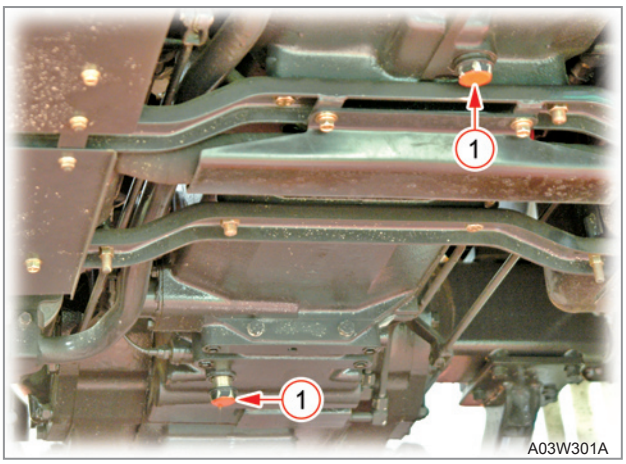
Material of component part	Steel or cast iron			Aluminum		
Unit / Diameter	Nm	kgf-m	lbf-ft	Nm	kgf-m	lbf-ft
M8 (8 mm, 0.31 in.)	11.6 ~ 15.6	1.2 ~ 1.6	8.68 ~ 11.5	8.82 ~ 11.6	0.90 ~ 1.2	6.51 ~ 8.67
M10 (10 mm, 0.39 in.)	24.6 ~ 31.3	2.5 ~ 3.2	18.1 ~ 23.1	19.7 ~ 25.4	2.0 ~ 2.6	14.5 ~ 18.8
M12 (12 mm, 0.47 in.)	29.5 ~ 49.0	3.0 ~ 5.0	21.7 ~ 36.1	31.4	3.2	23.1

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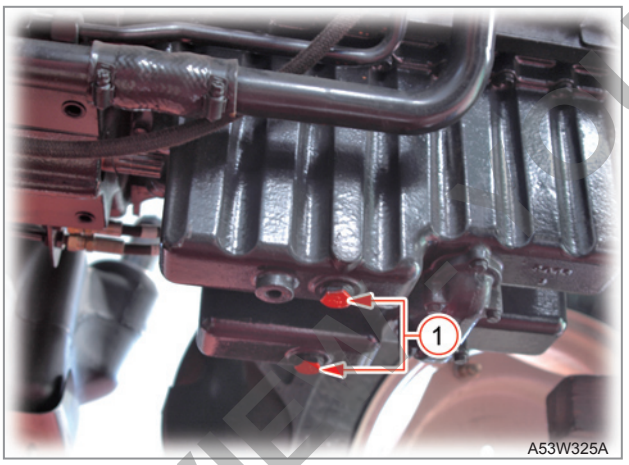
7. DISASSEMBLY, SERVICE AND ASSEMBLY

7.1 ENGINE REMOVAL

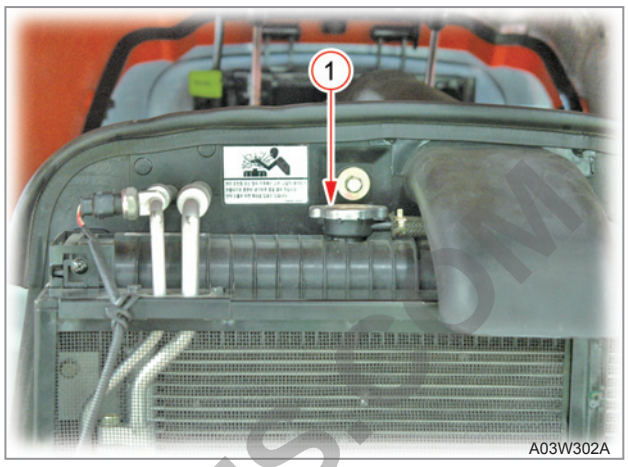
1. Park the tractor on level ground, stop the engine and apply the parking brake.

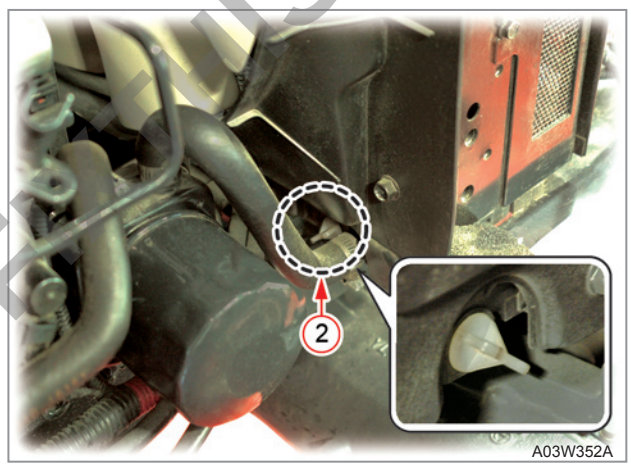


2. Unscrew the drain plug (1) under the transmission to drain transmission fluid.



3. If necessary, unscrew the drain plug (1) under the engine oil pan to drain engine oil.





4. Open the hood, open the radiator cap (1) and remove the drain cock to drain coolant.

⚠ WARNING

- When opening the radiator cap, make sure to open it after the engine is sufficiently cooled down. Otherwise, you can get burnt by hot coolant.
  Also, unscrew the cap a little to release the internal pressure before removing the cap completely.

5. Disconnect the negative battery cable.

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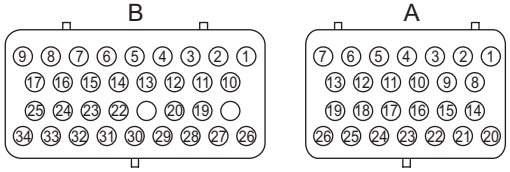
5.27 POWER SHUTTLE CONTROLLER (RX6010PC)





The power shuttle controller (2) can be accessed by removing the floor mat and opening the maintenance plate (1) of the left footstep.

5.27.1 CONNECTOR PIN ARRANGEMENT



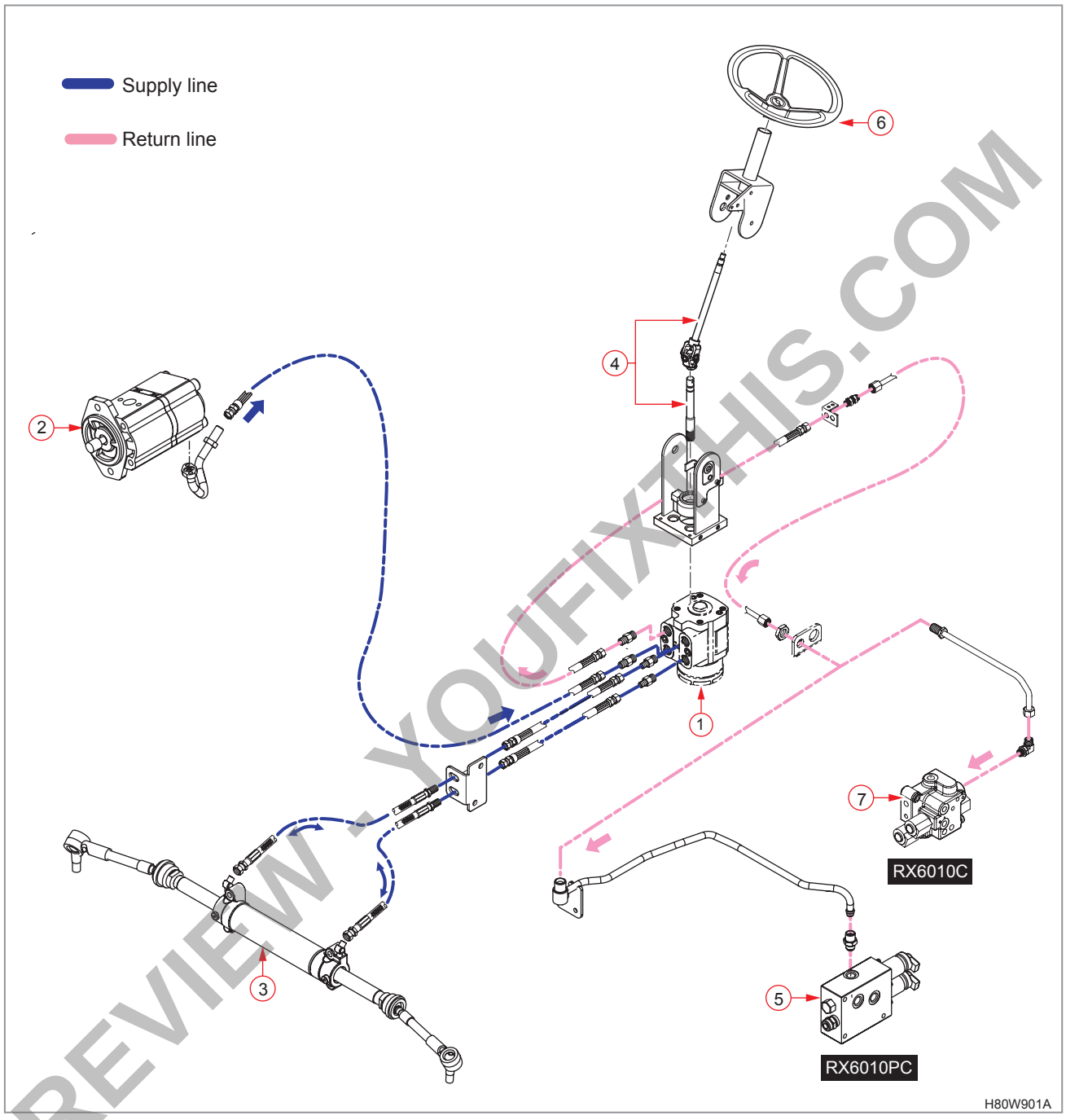
Connector ID	Pin No.	Function description
A	1	Forward shuttle (prop. Sol) output (-)
A	2	Forward shuttle (prop. Sol) output (+)
A	3	RxD2
A	4	TxD2
A	5	MD2
A	6	FWE
A	7	RESET
A	8	+5V (Sensor power)
A	9	Engine temperature sensor input
A	10	Clutch sensor input
A	11	Fluid temperature sensor input (Oil)
A	12	Pressure sensor (forward) input
A	13	Pressure sensor (reverse) input
A	14	+5V(Download)
A	15	Spare input (switch -)
A	16	PTO MAIN switch input (switch +)
A	17	Spare input (switch -)
A	19	Fuel sender signal input
A	20	Power +12V
A	22	Spare input (sensor)
A	23	Spare input (sensor)
A	24	Pickup sensor input
A	25	Speed power sensor input
A	26	GND
B	1	Shuttle reverse driving switch input
B	2	Shuttle forward driving switch input
B	3	QT switch input
B	4	Calibration switch (DEC) input
B	5	Range shift mid speed switch (NC) input
B	6	Brake (one side) switch input
B	7	Parking switch input
B	8	Neutral lamp output
B	9	Forward driving lamp output
B	10	Shuttle neutral switch input
B	11	4WD switch input
B	12	Calibration switch (INC) input
B	13	Range shift high speed switch (NC) input
B	14	Range shift low speed switch (NC) input
B	15	Front wheel turning angle switch input
B	16	Reverse driving lamp output
B	17	Low fuel level warning lamp output
B	18	CUT OFF SOL. output(-)
B	19	Hourmeter output(16Hz)
B	20	Ignition signal output(-)
B	21	Engine stop signal output(-)
B	22	Spare output (GND output)
B	23	Spare output (GND output)
B	24	High coolant temperature warning lamp output
B	25	Parking brake lamp output
B	26	4WD solenoid output
B	27	QT solenoid output
B	28	Reverse shuttle solenoid (prop. Sol) output (+)
B	29	Reverse shuttle solenoid (prop. Sol) output (-)
B	30	SEAT switch input
B	31	CLUTCH safety switch input
B	32	Brake switch
B	33	Buzzer output
B	34	GND

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2. STRUCTURE AND OPERATING PRINCIPLE

2.1 OPERATING DIAGRAM



(1) Power steering unit
(2) Gear pump (10 cc/rev)
(3) Steering cylinder
(4) Steering shaft
(5) Shuttle valve
(6) Steering wheel
(7) Modulator valve

The steering system consists of the power steering unit (1), gear pump (2) and steering cylinder (3) and it is fully operated by hydraulic oil without mechanical links. Hydraulic oil is supplied by the gear pump (capacity: 10 cc/rev.) and flows to the steering unit. Depending on the turning direction of the steering wheel (6), hydraulic is flown to the right port (for left turn) or left port (for right turn) of the steering cylinder through the steering shaft (4), resulting in expansion of the cylinder. The steering system is a load-reaction type. Therefore, when turning the steering wheel to the left or right and then releasing it, it returns to its center position. Also, if the hydraulic system does not work, the steering unit can be turned manually by the trochoid pump in the steering unit. The steering unit is equipped with a relief valve in it. When the steering cylinder is fully extended or the front wheels are overloaded, this valve releases pressure in order to protect the circuit. The gear pump is a tandem pump while the secondary pump is for steering. For vehicles equipped with a power shuttle system (RX6010PC), hydraulic oil returned from the steering unit flows to the shuttle valve (5) to operate the shuttle clutch. For vehicles equipped with a mechanical shuttle system (RX6010C), hydraulic oil from the steering unit flows to the modulator valve to operate various clutches.

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4. TROUBLESHOOTING

Symptom	Causes	Remedy
Engine Does Not Start	• No fuel	Add fuel
	• Air in fuel system	Bleed air
	• Water in fuel system	Change fuel and repair or flush fuel system
	• Clogged fuel pipe	Clean
	• Clogged fuel filter	Clean or replace
	• Excessively high viscosity of fuel or engine oil at low temperature	Use the specified fuel or engine oil
	• Fuel with low cetane number	Use the specified fuel
	• Fuel leak due to loose injection pipe mounting nut	Tighten nut
	• Incorrect injection timing	Adjust
	• Worn fuel camshaft	Replace
	• Clogged injection nozzle	Clean or replace
	• Defective fuel injection pump	Repair or replace
	• Defective fuel transfer pump	Repair or replace
	• Seizure of transfer pump, defective piston, cylinder bore or bearing	Repair or replace
	• Compression leak from cylinder	Replace head gasket, tighten cylinder head screws, glow plug and nozzle holder
	• Improper valve seating, damaged valve spring, valve seized	Repair or replace
	• Improper valve timing	Correct or replace timing gear
	• Worn piston ring and bore	Repair or replace
	• Excessive valve clearance	Adjust
Start motor Does Not Run	• Discharged battery	Charge
	• Defective start motor	Repair or replace
	• Defective key switch	Repair or replace
	• Disconnected wiring	Connect
Engine Running is Not Smooth	• Clogged or dirty fuel filter	Clean or replace
	• Clogged Air cleaner	Clean or replace
	• Fuel leak due to loose injection pipe mounting nut	Tighten nut
	• Defective fuel injection pump	Repair or replace
	• Incorrect nozzle opening pressure	Adjust or replace
	• Seized or clogged nozzle	Repair or replace
	• Clogged fuel overflow pipe	Clean or replace
	• Defective governor	Repair or replace
Either White or Blue Exhaust Smoke is Produced	• Excessive engine oil	Reduce to the specified level
	• Worn piston ring and bore or seized piston ring	Repair or replace
	• Incorrect injection timing	Adjust
	• Insufficient compression pressure	Adjust valve clearance
Either Black or Dark Gray Exhaust Smoke is Produced	• Overheat or overload	Reduce load
	• Low grade fuel used	Use the specified fuel
	• Clogged fuel filter	Clean or replace
	• Clogged Air cleaner	Clean or replace
Insufficient Output	• Incorrect injection timing	Adjust
	• Seized engine components	Repair or replace
	• Uneven fuel injection	Repair or replace the fuel injection pump
	• Insufficient nozzle injection	Repair or replace the nozzle
	• Compression pressure leak	Replace cylinder head gasket, check tightness of cylinder head screws and nuts, glow plug and nozzle holder

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5. SPECIFICATIONS

Model			RX6010C		RX6010PC	
			USA	AU/EU	USA	AU/EU
Engine	Model		4B243TLWM		4B243TLWM-K	
	Type		Upright, 4-cylinder, water-cooled 4-cycle, diesel		←	
	Max. power	HP(Kw)/rpm	59.0 (44.0) / 2600		←	
	Number of cylinders		4		←	
	Bore x Stroke	mm (in.)	87 X 102.4 (3.4 X 4.0)		←	
	Total displacement	cc(cu in.)	2.435 (148.6)		←	
	Rated revolution	(rpm)	2,600		←	
	Injection timing		BTDC 22°		←	
	Injection sequence		1 - 3 - 4 - 2		←	
Capacity	Fuel tank	ℓ (U.S.gal)	95 / 25.1		←	
	Engine crankcase	ℓ (U.S.gal)	7.7 / 2.03		←	
	Engine coolant	ℓ (U.S.gal)	9.1 / 2.4		←	
	Transmission case	ℓ (U.S.gal)	58 / 15.3		←	
	Front axle support	ℓ (U.S.gal)	8.5 / 2.2		←	
Driving system	Clutch		Dry type single stage		Hydraulic, wet multi discs	
	Transmission system	Main shift	4-gear, synchromesh		←	
		Shuttle	Synchromesh		Power	
		Range shift	3-gear, constant-mesh		←	
		Number of gears	F12 X R12		←	
	Brake system		Wet type, multiple plates		←	
	Four wheel drive		Hydraulic dog clutch	Hydraulic, wet type multi-plate clutch	Hydraulic dog clutch	Hydraulic, wet type multi-plate clutch
	Differential lock		Pin shift		←	
	Tire size	Front wheel in.	9.5-20	11.2-20	9.5-20	11.2-20
		Rear wheel in.	14.9-28	14.9-30	14.9-28	14.9-30
Hydraulic system	Hydraulic lift control		Position, draft and mixed control		←	
	Steering		Full hydraulic power		←	
	Pump oil flow	Main ℓ/min (U.S.gal)	41.6 (10.98)		←	
		Steering ℓ/min (U.S.gal)	26.0 (6.86)		←	
	3-point hitch type		SAE category II		←	
	Max. lifting capacity kgf (lbs)	From 610 mm behind	1,683 (3,710)		←	
		Under lower link	2,378 (5,243)		←	
	Number of remote hydraulic valve		1		←	
PTO	Type		Independent PTO, hydraulic wet type multi-plate clutch		←	
	PTO shaft dimension	in.	SAE 1 3/8", 6 splines		←	
	PTO Speed (PTO rpm/ engine rpm)	1st rpm	540	540	540	540
		2nd rpm	-	1000	-	1000
Driving speed	Forward	Km/h (mile/h)	1.86~31.56 (1.16~19.61)	1.93~38.54 (1.20~23.95)	1.86~31.56 (1.16~19.61)	1.93~38.54 (1.20~23.95)
	Reverse	Km/h (mile/h)	1.83~31.03 (1.14~19.28)	1.90~37.90 (1.18~23.55)	1.83~31.03 (1.14~19.28)	1.90~37.90 (1.18~23.55)
Min. turning radius (when braking) mm (in.)			3,020 (118.9)	3,110 (122.4)	3,020 (118.9)	3,110 (122.4)
Weight (including cabin, excluding front weight) kgf (lbs)			2,575 (5,677)	2,610 (5,754)	2,575 (5,677)	2,610 (5,754)

NOTES: The specifications are subject to change without notice.

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7. CALIBRATION, DIAGNOSIS AND UPGRADE

7.1 CALIBRATION

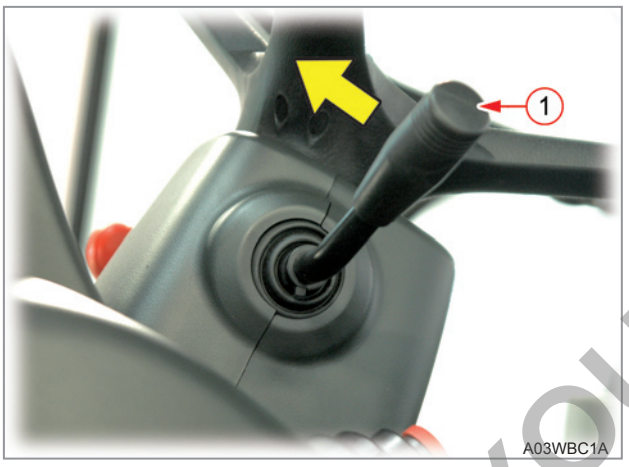
7.1.1 POWER SHUTTLE CALIBRATION(RX6010PC)

A. CLUTCH SENSOR POSITION SETUP

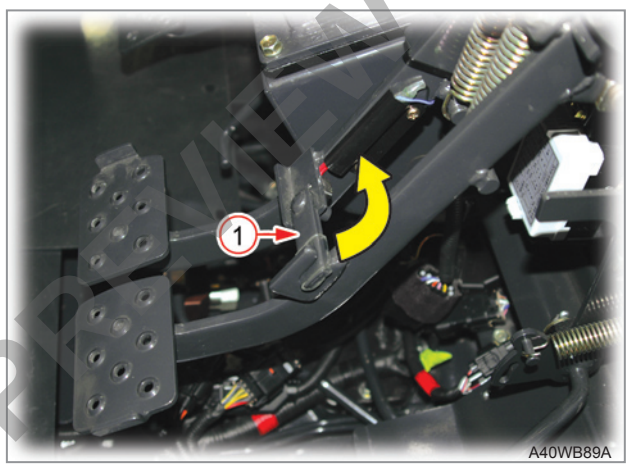
IMPORTANT

- **When the clutch pedal angle sensor is replaced or the power shuttle controller under the floor cover is replaced, they should be calibrated.**

1. Park the tractor on level ground and turn the ignition switch to the “OFF” position.



2. Place the shuttle lever (1) to the forward driving position.(Check “F” lamp lighting on the combimeter)



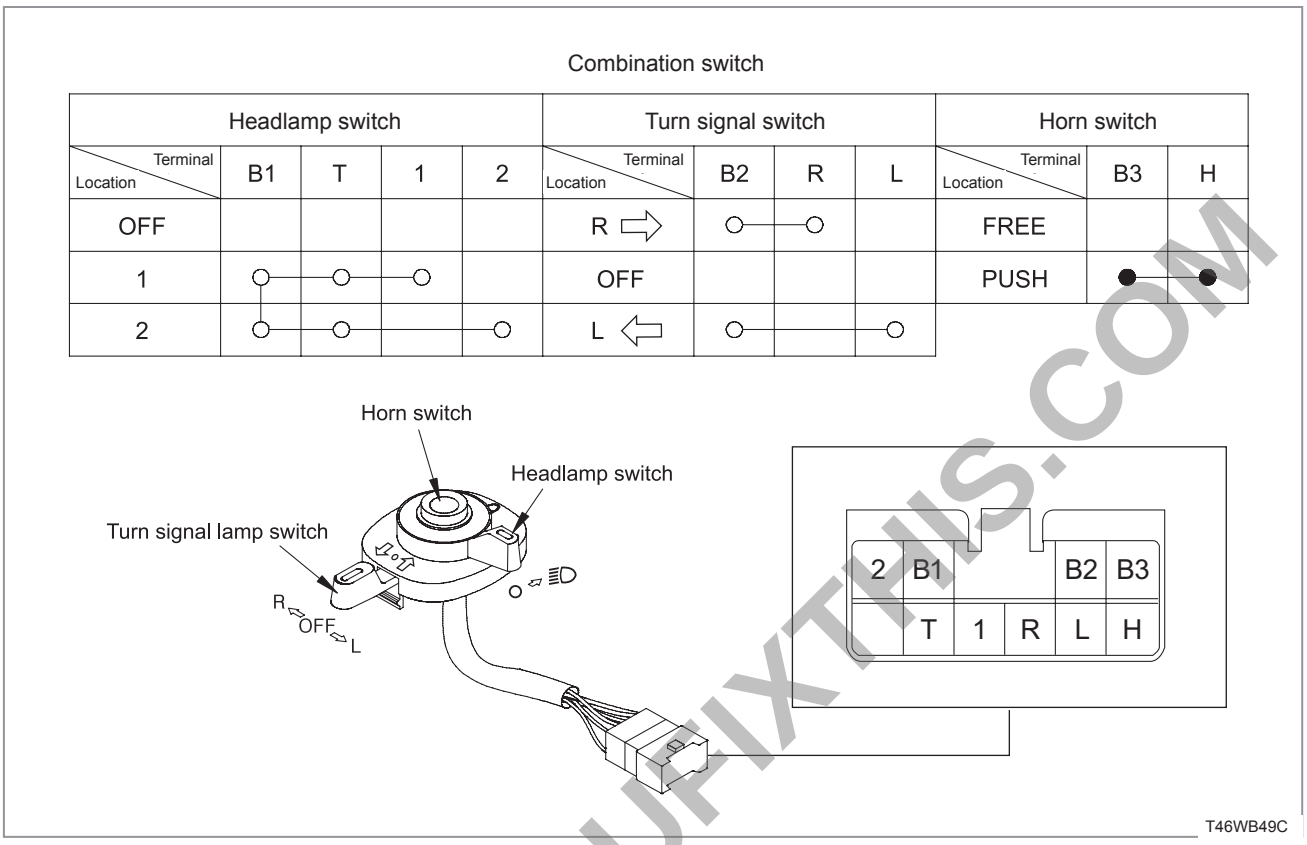
3. Undo the brake pedal engagement hook (1).



4. Turn the ignition switch to the "ON" position while pressing(more than 2 sec) the "INC (+)" position of the calibration switch on the inner fender on the right side of the seat. When the "N" lamp blinks, the calibration mode is activated.
5. To set the displacement of the angle sensor, depress the clutch pedal fully and press and release the “DEC (-)” part of the calibration switch. Then, the “N” (neutral) lamp on the instrument cluster blinks once.
6. Release the clutch pedal completely, and press and release the “INC (+)” part of the calibration switch. Then, the “N” (neutral) lamp on the instrument cluster blinks once.
7. Turn the ignition switch to the “OFF” position to store the set values.

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TEST



Range	Position	Measuring point with tester		Result
		Red Lead	Black Lead	
Resistance	Moving headlamp switch to 1st position	Connector (B1)	Connector (T)	Continuity
		Connector (B1)	Connector (1)	Continuity
DC Voltage		Connector (T)	Chassis (GND)	DC 12 V
		Connector (1)	Chassis (GND)	DC 12 V
Resistance	Moving headlamp switch to 2nd position	Connector (B1)	Connector (T)	Continuity
		Connector (B1)	Connector (2)	Continuity
DC Voltage		Connector (T)	Chassis (GND)	DC 12 V
		Connector (2)	Chassis (GND)	DC 12 V
Resistance	Operating RH turn signal lamp switch	Connector (B2)	Connector (R)	Continuity
Resistance	Operating LH turn signal lamp switch	Connector (B2)	Connector (L)	Continuity
Resistance	Operating horn switch	Connector (B3)	Connector (H)	Continuity

- The voltage should be measured when the ignition switch is in the ON position.
- When measuring the resistance with a tester, it is OK to switch the leads (red and black).

※ If the test results are not as outlined above, replace the combination switch.

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2.4 SERVICING SPECIFICATIONS

Engine body

Item			Specification	Allowable limit
A. Cylinder Head	Cylinder head surface flatness		-	0.05 mm / 100 mm (0.002 in. / 3.94 in.)
	T.D.C clearance		0.750 ~ 0.9 mm (0.0294 ~ 0.0354 in.)	-
	Gasket Thickness		Tightened 1.21 mm (0.0476 in.)	-
	Compression Pressure (When cranking with starter motor) ※ Variance of compression pressure among cylinders should be 10% or less.		3.24 ~ 3.73 MPa 33 ~ 38 kgf/cm^2 469 ~ 540 psi	2.55 MPa 26 kgf/cm^2 370 psi
B. Valves	Valve Clearance (Cold)	IN.	0.25 mm (0.010 in.)	± 0.05 mm (0.002 in.)
		EX.	0.3 mm (0.012 in.)	± 0.05 mm (0.002 in.)
	Valve Seat Angle	IN.	60° (1.047 rad.)	-
		EX.	45° (0.785 rad.)	-
	Valve Face Angle	IN.	60° (1.047 rad.)	-
		EX.	45° (0.785 rad.)	-
	Valve recess		0.2 ~ 0.5 mm (0.0079 ~ 0.0197 in.)	0.8 mm (0.0315 in.)
	Clearance Between Valve Stem and Valve Guide		0.040 ~ 0.070 mm (0.0016 ~ 0.0028 in.)	0.10 mm (0.039 in.)
	Valve Stem O.D.		7.960 ~ 7.975 mm (0.31339 ~ 0.31398 in.)	-
	Valve Stem I.D.		8.015 ~ 8.030 mm (0.3156 ~ 0.3161 in.)	-
C. Valve Timing	Intake Valve	Open	0.14 rad (8°) before T.D.C	-
		Close	0.611 rad (35°) after B.D.C	
	Exhaust Valve	Open	0.785 rad (45°) before B.D.C	-
		Close	0.140 rad (8°) after T.D.C	
D. Cylinder	Bore I.D.		87.000 ~ 87.022 mm (3.425 ~ 3.426 in.)	0.15 mm (0.0059 in.)

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8. MAINTENANCE

8.1 MAINTENANCE SCHEDULE CHART

No.	Inspection Items	Interval	Run hour								Run age		Remarks	
			50	100	200	400	600	800	1500	3000	1 year	2 years		
1	Engine oil & engine oil filter	Replace	⦿	●										
2	Transmission fluid filter	Replace	⦿		●									
3	Transmission fluid	Replace				●								
4	Front axle oil	Replace	⦿			●								
5	Front axle pivot	Adjust					●							
6	Engine ignition system	Check	●											
7	Greasing	Apply	●											
8	wheel bolt	Check	●											
9	Battery condition	Check		●									*3	
10	Air cleaner element	Clean		●									*1	#
		Replace									●		*2	
11	Fuel filter element	Replace			●									#
12	Fan belt	Adjust		●									*3	
13	Clutch pedal play	Adjust	⦿	●										
14	Brake pedal play	Adjust		●										
15	Radiator hose Clamp	Check			●									
		Replace										●		
16	Power steering hose and oil line	Check			●									
		Replace										●		
17	Fuel line	Check		●										#
		Replace										●		
18	Intake air hose	Check			●									
		Replace										●	*3	
19	Toe-in	Adjust			●									
20	Engine valve clearance	Adjust						●						

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SAFETY FIRST

CHAPTER 1

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3.5.2 OPERATION OF GOVERNOR

1. WHEN STOPPED

The fuel is blocked since the solenoid (3) pushes the injection pump control rack (4) of the injection pump to the left.

2. WHEN TURNING THE KEY SWITCH ON

When the electromagnet in the stop solenoid operates and the pin is retracted, the injection pump control rack (4) is pushed to the right by the start spring (9) and the idle control shaft (10) to supply the sufficient amount of fuel in order to start the engine.

3. WHEN STARTING THE ENGINE AND RUNNING THE ENGINE AT LOW IDLE SPEED

When the engine is started, the steel ball (6) pushes the governor sleeve (11) to the left as the centrifugal force of the steel ball increases. Therefore, the governor fork lever 1 (13) pushes the pump rack (4) to the left to reduce the amount of fuel supplied.

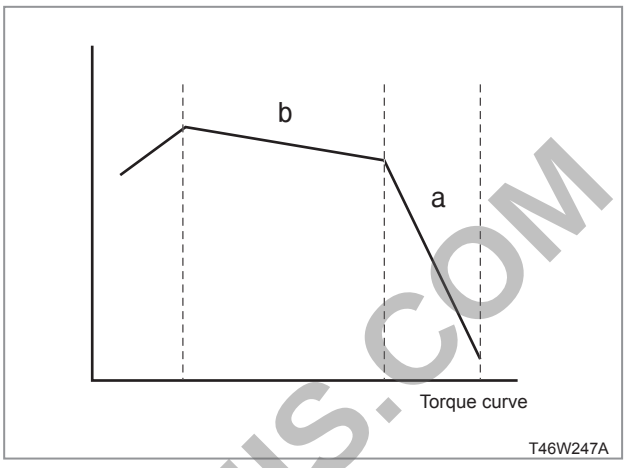
As the control rack is stopped by the idle spring (8), it keeps the balance with the centrifugal force of the steel ball so that at least minimum amount of fuel is delivered for stable engine running at idle speed.

4. ACCELERATION AND DECELERATION

When depressing the accelerator pedal, the governor spring (1) pulls the fork lever 2 (12) to the right and then pushes the fork lever 1 (13) to the right. The fork lever (13) is stopped by the governor sleeve(11).

When the centrifugal force of the steel ball (6) that is proportional to the engine speed is balanced with the tension of the governor spring (1) that is determined by the driver, the stable speed is maintained.

5. LOAD INCREASE AT HIGH SPEED



When a load is applied to the engine running at a high speed, the centrifugal force of steel ball (6) decreases as the engine speed drops. Also, the fork lever 2 (12) is pulled to the right by the governor spring until it contacts the fuel limit bolt (14). Until then, the amount of injected fuel per one stroke of the injector plunger and the torque increase.

This range (a) is between the max. speed point with no load and the max. power point of the torque curve.

When the fork lever 2 is blocked by the fuel limit bolt (14) and does not move any more and the load is increased, the centrifugal force of steel ball drops further and the torque spring (15) compressed between the fork lever 1 and 2 is loosened. Then, the fork lever 2 moves to the right until the torque spring is free, and the amount of fuel supplied and the torque increase simultaneously.

This range (b) is between the max. power and the max. torque point in the torque curve.

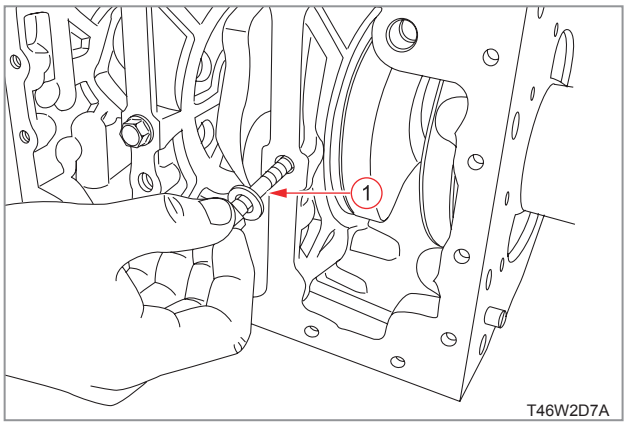
IMPORTANT

- **The fuel limit bolt (14), idle spring (9) and max. rpm setting bolt are set at factory. Unauthorized adjustment of such components can negatively effect the performance of the engine. Therefore, never adjust them without permission from DAEDONG. Such action violates the EPA regulation and also can void the warranty.**

6. WHEN STOPPED

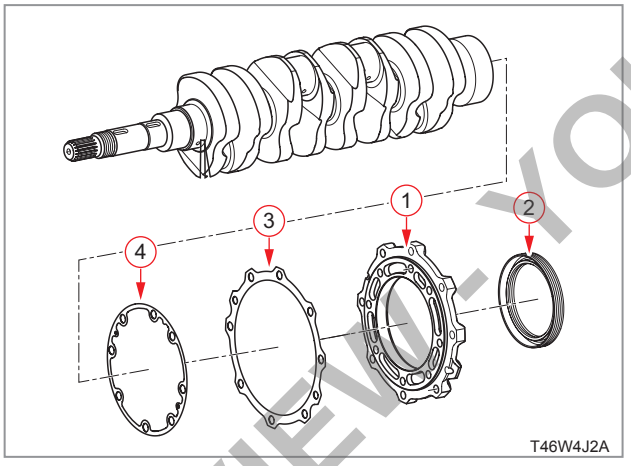
When the key switch is moved to the "OFF" position, the stop solenoid power is cut off to release the electromagnet. Therefore, the stop pin comes off by the return force of the spring and pushes the solenoid guide (2) and fuel injection pump rack to the stop position to stop the engine.

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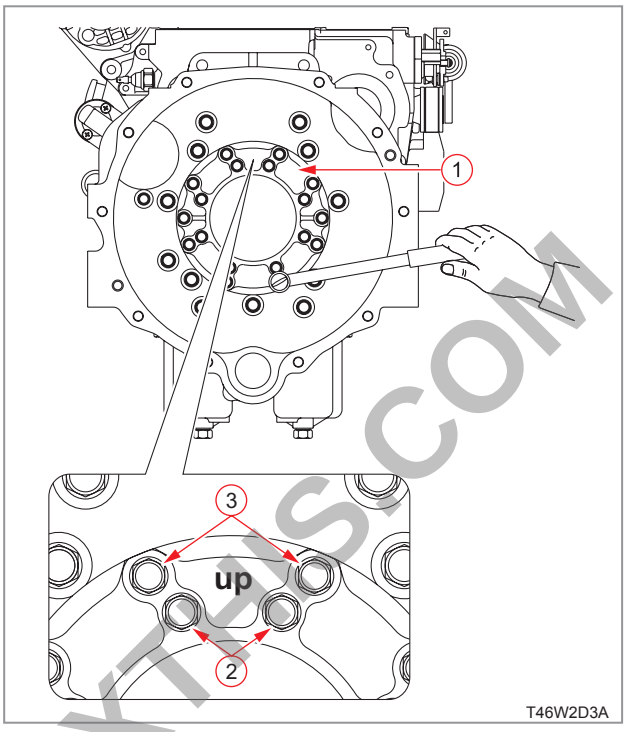


5. Align the main bearing mounting bolt hole with the hole on the cylinder block. Apply the sufficient amount of oil to the mounting bolt and tighten it with a hand completely.
6. Tighten them with the torque wrench.

   Main bearing mounting bolt torque
   .....68.6 ~ 73.5 Nm
   7.0 ~ 7.5 kgf-m
   50.6 ~ 54.2 lb-ft



7. Assemble the main bearing case cover (1) with the oil seal (2).
   * Be sure to assemble the bearing cover gasket (3) and bearing case cover gasket (4).



NOTES

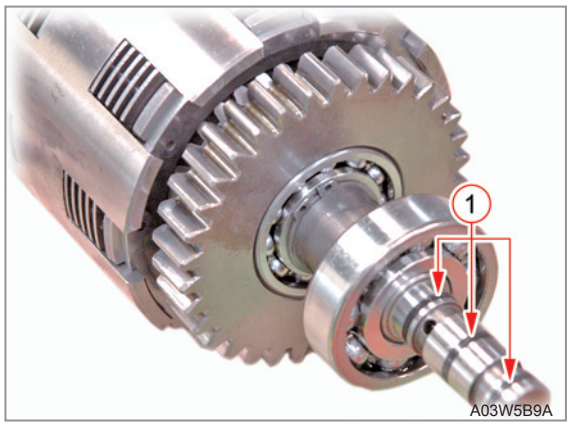
When installing the main bearing case cover, the "UP" mark on it should be at the highest position so that its holes are aligned with the holes of the cylinder block.

8. Tighten the outer bolts (3) first, then tighten the inner bolts (2).

   M8.....23.6 ~ 27.4 Nm
   2.4 ~ 2.8 kgf-m
   17.4 ~ 20.2 lb-ft

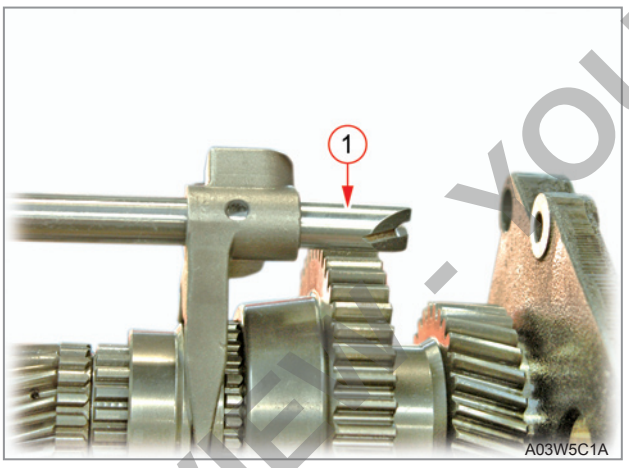
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IMPORTANT



- **As the seal ring (1) at the end of the front wheel drive shaft can be damage during disassembly, remove it in advance before disassembly.**

18. Assemble in the reverse order of disassembly. When installing each shaft to the bearing cover, insert each one to the bearing cover together to some depth. Then, push each one in little by little to secure it.



19. When installing the shift fork and fork rod, insert the spring and steel ball to the shift fork hole and push the fork rod with an installation tool (1) as shown in the figure.

REMARK

- **Use a detent ball installation tool. (Refer to section for main shift section disassembly.)**

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1.2 SERVICE SPECIFICATIONS

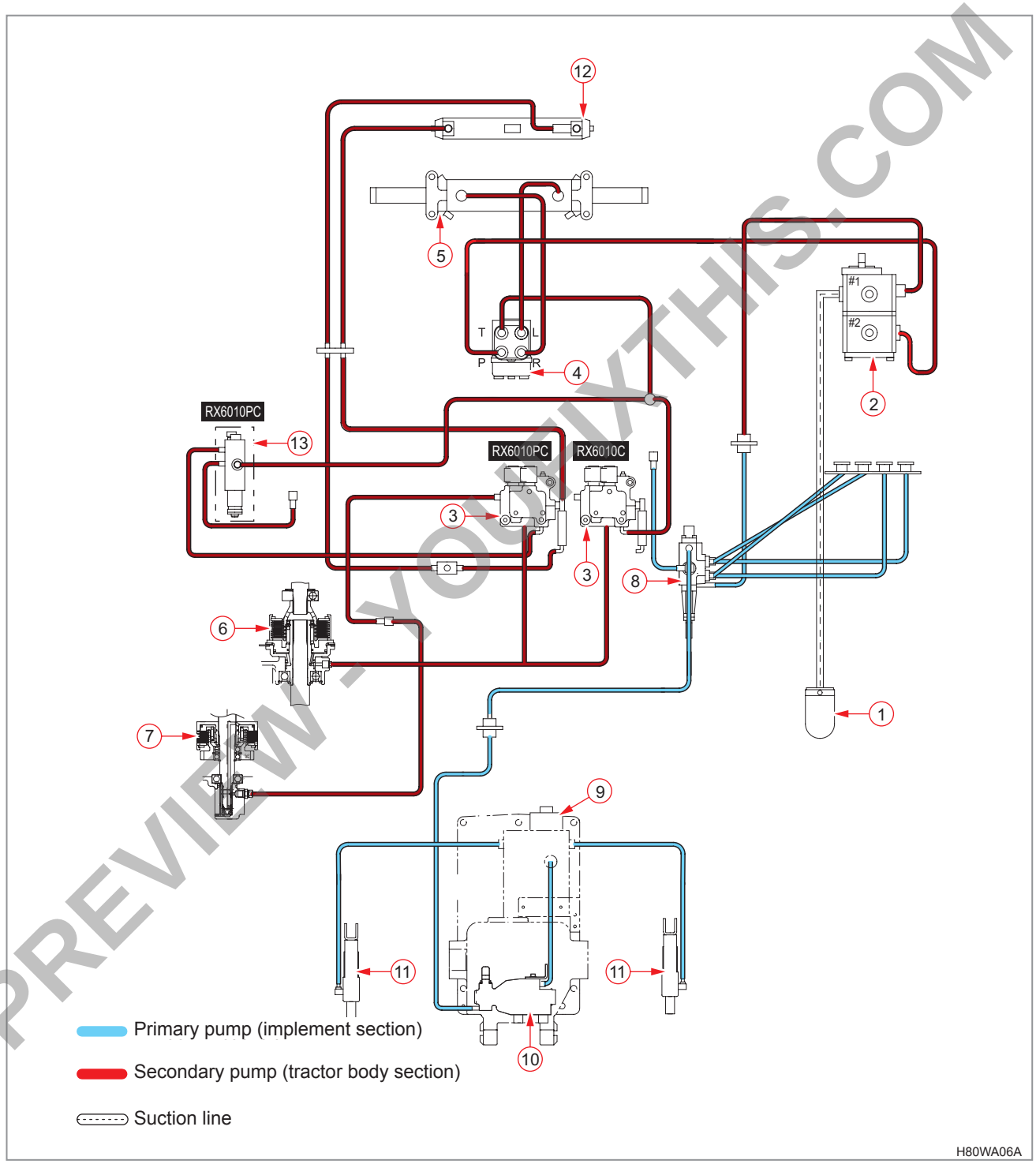
Item			Factory spec.	Allowable limit
Front wheel alignment		Toe-in	2 ~ 8 mm (0.08 ~ 0.32 in.)	-
Front wheel		Axial sway	5 mm or less (0.20 in. or less)	-
Front axle		Rocking force	49.0 ~ 117.7 N 5.0 ~ 12.0 kgf 11.0 ~ 26.5 lbs	-
Front axle front bracket	Between front axle support center pin and bracket bushing	Clearance	0.095 ~ 0.175 mm (0.00374 ~ 0.00689 in.)	0.35 mm (0.0138 in.)
	Front axle support center pin	O.D.	64.970 ~ 65.000 mm (2.55787 ~ 2.55906 in.)	-
	Bushing	I.D.	65.090~ 65.145 mm (2.56280 ~ 2.56476 in.)	-
Front axle rear bracket	Between front axle support boss (rear) and bracket bushing	Clearance	0.100 ~ 0.302 mm (0.00394 ~ 0.01189 in.)	0.60 mm (0.0236 in.)
	Front axle support boss (rear)	O.D.	89.965 ~ 90.000 mm (3.54193 ~ 3.54331 in.)	-
	Bushing	I.D.	90.000 ~ 90.267 mm (3.35039 ~ 3.35295 in.)	-

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2.4 OPERATING PRINCIPLE

The hydraulic pump equipped in this tractor is a gear driven pump and the primary and secondary pumps are installed in tandem. The primary pump is a large-capacity pump for an implement while the secondary pump is a relatively small pump for the tractor operation. Therefore, the primary pump is used for the joystick valve, hydraulic cylinder, double acting valve, lift cylinder, etc. while the secondary pump is used for the steering system, 4WD, PTO clutch, modulator valve, shuttle valve (RX6010PC model), etc.

2.4.1 OPERATING DIAGRAM

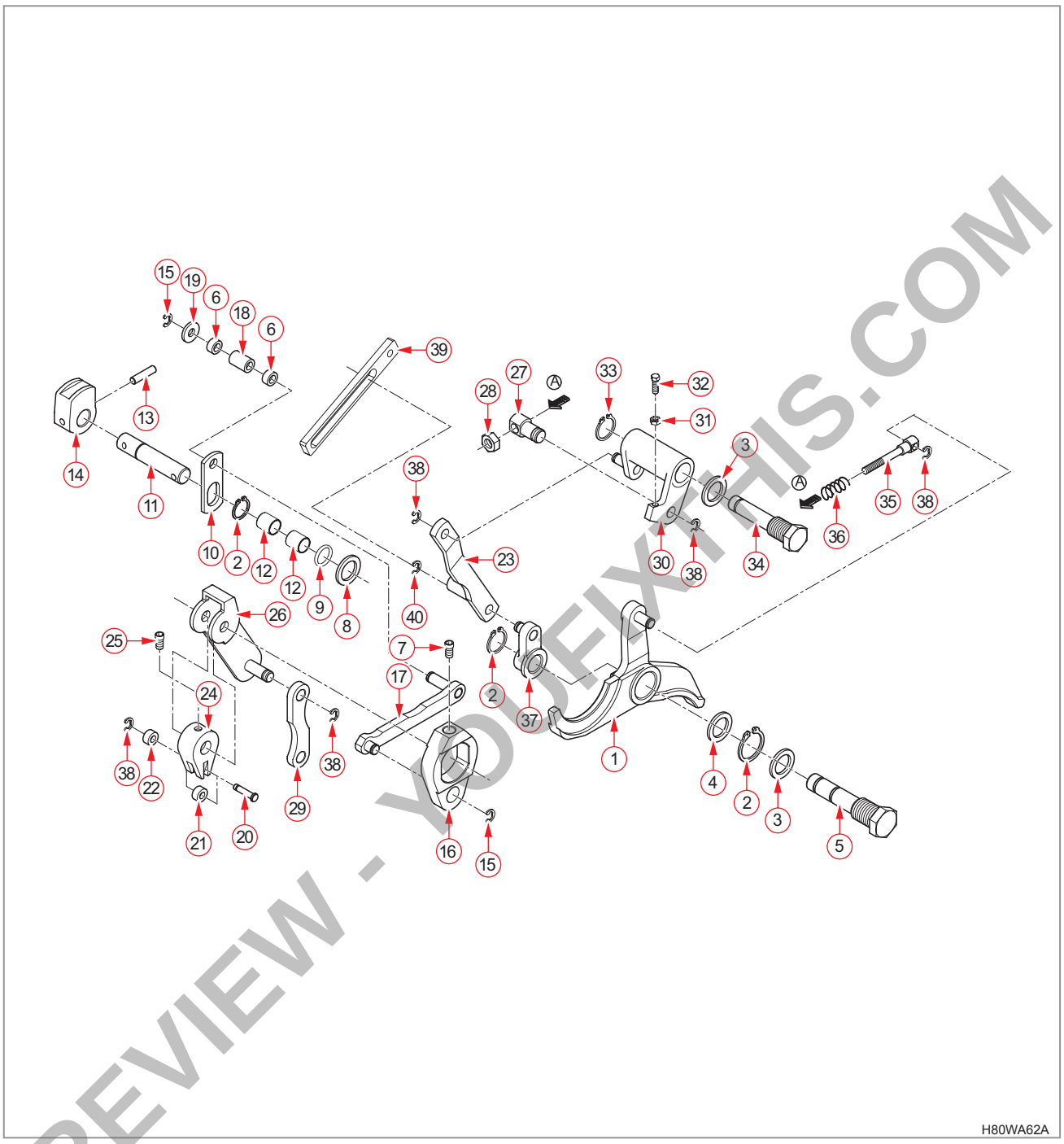


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COMPONENTS

(1) Hydraulic filter
(2) Gear pump
(3) Modulator valve
(4) Steering unit
(5) Steering cylinder
(6) PTO clutch
(7) 4WD clutch
(8) Joystick valve
(9) MLS valve
(10) Double acting valve
(11) Lift cylinder
(12) Oil cooler
(13) Shuttle valve

6.11 T0385A HYDRAULIC ADJUSTING SYSTEM 2



COMPONENTS

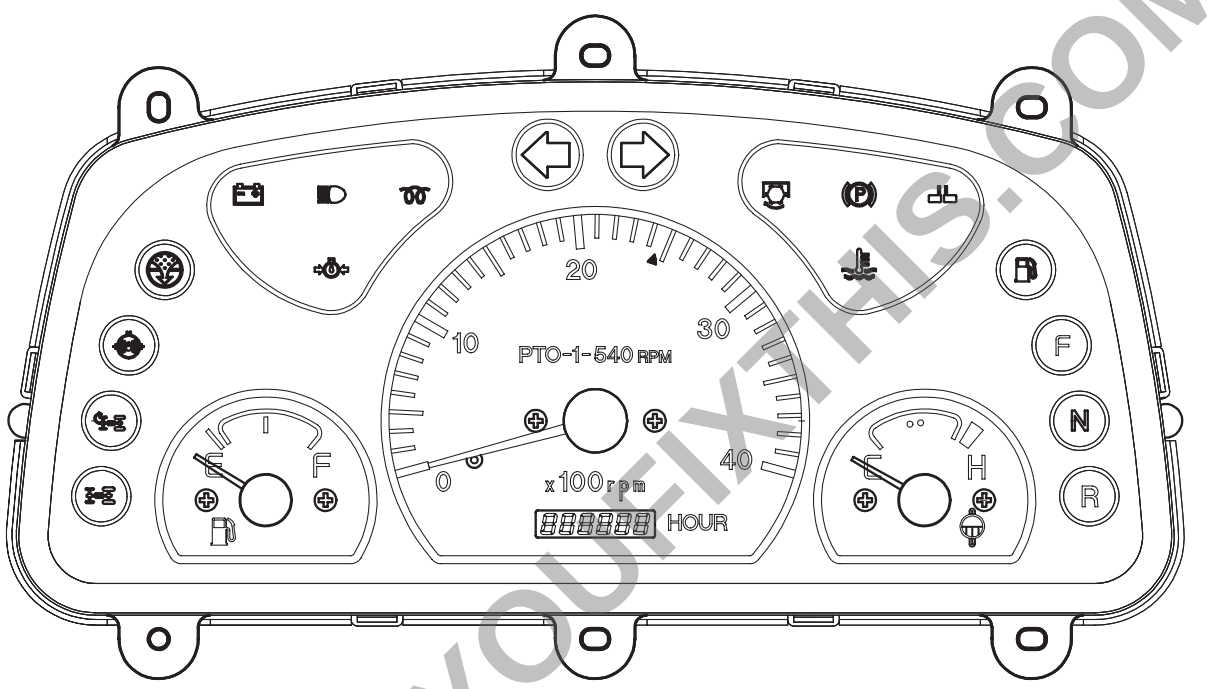
(1) Lever
(2) Snap ring
(3) Packing
(4) Transfer shaft spacer
(5) Pin
(6) Roller, 3
(7) Holder screw
(8) Oil seal
(9) O-ring
(10) Link, 4
(11) Shaft
(12) Bush
(13) Spring pin
(14) Cam
(15) Snap ring
(16) Link, 1
(17) Link, 2
(18) Roller, 4
(19) Plain washer
(20) Pin
(21) Roller, 1
(22) Roller, 2
(23) Tie rod
(24) Arm
(25) Holder screw
(26) Cam
(27) Pin
(28) Nut
(29) Link 3
(30) Lever, 2
(31) Nut
(32) Bolt
(33) Snap ring
(34) Pin
(35) Pin
(36) Spring
(37) Link
(38) Snap ring
(39) Feedback arm
(40) Snap ring

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5.35 INSTRUMENT CLUSTER

5.35.1 COMPONENTS AND LOCATIONS

A. SYMBOLS AND COMPONENTS



H80WB31A

SYMBOLS

SIMBOL	F	R		N	(P)													
NAME	FORWARD	REVERSE	HIGH BEAM	NEUTRAL	PARKING	AIR FILTER	CHARGE	ENG OIL	GLOW	QUICK TURN	4WD	COOLANT TEMP	LOW FUEL	PTO	DIFFERENTIAL LOCK	ONE SIDE BRAKE	TURN/L	TURN/R
LAMP	14V 1.4W	14V 1.4W	14V 1.4W	14V 1.4W	14V 1.4W	14V 1.4W	14V 3.0W	14V 1.4W	14V 1.4W	14V 1.4W	14V 1.4W	14V 1.4W	14V 1.4W	14V 1.4W	14V 1.4W	14V 1.4W	14V 1.4W	14V 1.4W
COLOR	GREEN	GREEN	BLUE	GREEN	RED	AMBER	RED	RED	AMBER	AMBER	AMBER	RED	AMBER	AMBER	AMBER	RED	RED	GREEN

H80WB32A

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18. Lift and remove the cabin with a hoist by hooking the hoist to the front right, front left, rear right and rear left sections of the cabin as shown in the figure.

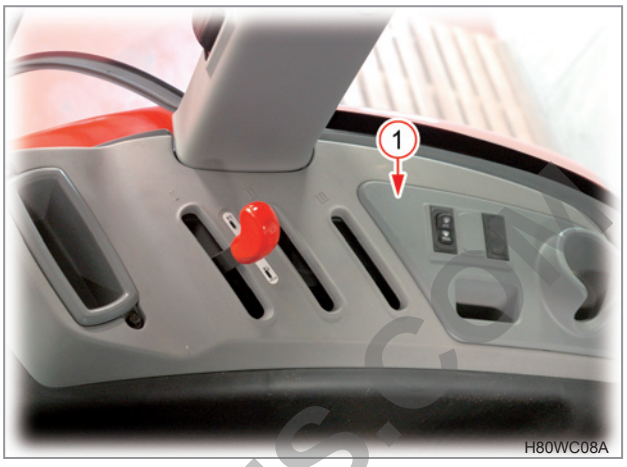
REMARK



- **When removing the cabin, lift it with a hoist slowly checking nothing is interfered with or caught by any part. After removing it, place it in a safe place. Also, make sure there is no one around the work area.**

2.2 COMPONENT REMOVAL

• INTERIOR FENDER (RH) REMOVAL



1. Insert a flat bladed screwdriver through the gap of the interior fender upper cover (1) on the right side from the seat to pry open the cover. Then, disconnect the switch connectors.





2. Remove the front and rear pillar cover caps (1), unscrew the mounting bolts (2) and disconnect the switch connectors. Also, remove the pillar covers (3).

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